

What is claimed is:

1. A method of forming a ferroelectric film including a complex oxide of lead zirconate titanate (PZT) family on a metal film formed of platinum (Pt) by using a metalorganic chemical vapor deposition method, the method comprising:
 - starting supply of lead (Pb) to form an alloy film of Pb and Pt on the metal film;
 - starting supply of titanium (Ti) to form initial crystal nuclei of a lead titanate (PbTiO_3) on the alloy film; and
 - starting supply of zirconium (Zr) to form a crystal grown layer of the complex oxide of PZT family on the initial crystal nuclei.
2. The method of forming a ferroelectric film as defined in claim 1, wherein:
 - the alloy film is formed in an inert gas atmosphere; and
 - supply of an oxidizing gas is started together with the supply of Ti.
3. The method of forming a ferroelectric film as defined in claim 1, wherein the alloy film is formed at 400°C or less.
4. The method of forming a ferroelectric film as defined in claim 1, wherein the initial crystal nuclei are formed in an island pattern.